

APPENDIX D

PART I

SELECTION OF INSTRUCTIONAL METHODOLOGIES AND LEARNING ACTIVITIES

Meaningful learning activities represent the "heart" of the curriculum. They are influential in shaping a learner's experience and thus education. Learning experiences, and not the content as such, are the means for achieving the objectives.

An instructor should have a wide range of methodologies available to assist the students in achieving the objectives. Any learning activities that are developed should allow the student to discover personal meaning in the content covered under each objective. Ingestion of information usually has little effect on a student's behavior; rather, it is the personal meaning of that information that shapes the student's experience and determines what is learned.

The methodologies and learning activities you use will be determined by five elements:

1. Nature of the content
2. Abilities of the instructor
3. Size of the class
4. Place of instruction
5. Level of the student's knowledge and motivation

Each of these elements should be considered before selecting specific methodologies and learning activities.

NATURE OF THE CONTENT

The objectives and accompanying content will set certain limits on an instructional approach. If the students are expected to perform a skill, then demonstration and practice are essential. If the required content is extensive or complex, group discussion may not be appropriate. The size of the class and the allotted time will influence the choice of method for presenting the content.

ABILITIES OF THE INSTRUCTORS

Teaching methods vary in their requirements of instructors. Not all instructors are comfortable with all approaches. Some lack the skill; with others, it is their personality or personal preference. An instructor who prefers the direct feedback of student response may be uncomfortable teaching on a

videotape. On the other hand, an instructor who does not want to be interrupted with questions may want the control a videotape provides.

An instructor should not be afraid to experiment with different instructional strategies. Knowledge of the demands of each, their advantages and limitations, and understanding the ways that the methods enhance learning will be of assistance in the selection of methods and preparation of learning activities. What is important is for an instructor to be competent in a number of methodologies and activities.

SIZE OF THE CLASS

Certain methods and activities lose their effectiveness as numbers in the class increase or decrease. Group discussions involving more than eight (8) persons are often not particularly effective. Role playing requires enough people to handle each role. Some scenarios could require more people than are available. Range or on-street activities should be limited to groups of 3 students and 1 instructor per vehicle.

PLACE OF INSTRUCTION

Before a particular method or activity is chosen, consideration must be given to where the class is being held. If the seating consists of chairs bolted in one direction, such as in an auditorium, then group discussion becomes physically awkward. A demonstration requires that learners be sufficiently close to see clearly. Therefore arrangements need to be made to provide such access. If a particular method or activity is necessary, the facility must be compatible for its use.

The use of one method or activity for teaching a topic is not always the most effective choice. Group discussion or simulation can be combined with a question and answer session. The advantage in combining methods is that people learn in different ways. Mixing methods and approaches provides more people with their optimum learning approach.

Any instructional session longer than 2 hours should use more than one method and learning activity. Changes in teaching strategy will keep the students alert, interested, and varied in their level of participation. An adult's attention span, while longer than a child's, is not unlimited. Learning will be enhanced by variations and regular breaks.

There is no one method or activity which is inherently better than the others. All have positive and negative factors. Choose the one(s) that best fit the content, length, students, and cost of equipment or supplies needed for effective instruction.

SUGGESTED INSTRUCTIONAL METHODOLOGIES

The most common types of instructional methods are listed here. To help in the selection of methods, a number of considerations are discussed for each method.

1. Lecture

A verbal presentation made by one or more persons to a primarily passive audience.

a. Advantages

- (1) Can be used for any size audience, especially a large group
- (2) Convey a large amount of information in a short time
- (3) Allows complex information to be presented
- (4) Lays the groundwork for later discussion

b. Limitations

- (1) Passive audience
- (2) Rigid in presentation
- (3) Clarification of points of confusion not immediate
- (4) Not individualized

c. Audience Size—any size; no maximum.

d. Ways To Enhance Learning

- (1) Survey audience in advance, if possible, as to needs and incorporate these into lecture
- (2) Distribute materials as a preclass assignment
- (3) Distribute content outline to reduce note-taking
- (4) Use examples from audience's frame of reference
- (5) Use audiovisuals to stress major points

(6) Add a question and answer period at the end

2. Demonstration: Classroom

An observable manipulation of objects used to display an event or set of events. Demonstrations are a good hands-on practice activity.

a. Advantages

- (1) Objective and concrete
- (2) Focus on steps and procedures
- (3) Ideal for teaching "skills"
- (4) Combination of theory and practice
- (5) Problem oriented

b. Limitations

- (1) Not suitable for all content
- (2) Size of audience is limited
- (3) Seating arrangement is important
- (4) Preparation of equipment is necessary

c. Audience Size

Limited to the number who can be seated with a clear view of the demonstration. Semicircular seating arrangement may be better than the traditional rectangular one.

d. Ways To Enhance Learning

- (1) Make demonstration reality-based
- (2) Use equipment that students will use on the job
- (3) Demonstrate the skill and describe what is taking place
- (4) Allow time for supervised practice

(5) Give students a list of steps prior to the demonstration

- (6) Repeat main points more than once for emphasis
- (7) Allow for time for questions and answers

3. Demonstration: Range or On-Street

Observation of, or participation in, the demonstration of a desired skill. The student may be outside or inside the vehicle. Training is performed on a specially-designed driving layout or, for some objectives, on an actual public roadway.

a. Advantages

- (1) Active and dynamic
- (2) Combination of theory and practical experience
- (3) Easier correlation between theory and real-world conditions
- (4) Opportunity to focus on a portion of a task
- (5) Increases opportunities for decision-making
- (6) Promotes the learning process and a practice format
- (7) Supplies honest and timely feedback
- (8) Increases class learning exposure
- (9) Longer retention of knowledge, skills, and behavior
- (10) Measurable performance with absolute results
- (11) Individual instruction
- (12) Modification of activity to meet individual needs or to be more challenging

b. Limitations

- (1) Limited group size
- (2) Time consuming

- (3) More staff required to maintain acceptable instructor-to-student ratios
- (4) Environmental factors (topography, weather, surrounding facilities) may limit the type of training
- (5) Costly
- (6) Higher degree of danger encountered

c. Audience Size

Demonstrations in a vehicle should be limited to an instructor and not more than three students. The number of students is flexible depending on the active and objective.

d. Ways to Enhance Learning

- (1) Conduct theory or introduction sessions prior to the event
- (2) Create a reality-based activity
- (3) Avoid dramatics and entertainment; stay on the task
- (4) Use diagrams or handouts to enhance a concept
- (5) Encourage participation; allow time for discussion
- (6) Allow experimentation when appropriate
- (7) Conduct debriefing session to summarize events

4. Group Discussion

Develop through group process the participation of students in the exploration and exchange of ideas.

a. Advantages

- (1) An active and motivating learning process
- (2) Sharing of diverse viewpoints
- (3) Helps students organize and present ideas

- (4) Retention is longer than in passive learning situations
- (5) Develops critical thinking

b. Limitations

- (1) Requires time for an instructor to develop group process skills
- (2) May take longer to cover content
- (3) Students need to have some prior understanding of content
- (4) Not suitable for complex or technical content
- (5) Easy to get into irrelevant discussion

c. Audience Size

Groups should have no more than 8 members to promote optimum participation. Larger groups restrict individual contributions. A leader for each group is needed.

d. Ways to Enhance Learning

- (1) Provide preparatory material to avoid wasting time
- (2) Keep discussion relevant to the topic
- (3) Be positive
- (4) Encourage student participation

5. Simulation

Replication or re-enactment of a real life situation or event. Simulations are a good hands-on practice activity.

a. Advantages

- (1) Allows for learning in a non-threatening environment
- (2) Allows students to develop at their own pace
- (3) Allows students to experience reality-based occurrences
- (4) Reduces danger to community members from inexperienced practitioners

(5) Works well for procedures and skills

- b. Limitations
 - (1) Time consuming to prepare
 - (2) Limits audience size
 - (3) Equipment and preparation may be costly
 - (4) Some simulations cannot be moved from place to place
 - (5) Commercially prepared simulations are limited
- c. Audience Size—varies according to the number of students that can be accommodated by the equipment or simulation. Large groups can be handled by multiple sessions or a staggered starting time.
- d. Ways to Enhance Learning
 - (1) Make the simulation as similar to the learners' experience as possible
 - (2) Keep the content problem-centered rather than subject-centered
 - (3) Allow students to suggest or select the type of situation or event
 - (4) Allow sufficient time for practice

6. Panels of Resource People

Small groups of persons who have expertise in a particular content area.

- a. Advantages
 - (1) Builds empathetic understanding of uncommon and unfamiliar experiences
 - (2) Gives the students exposure to several areas of expertise and points of view
 - (3) Reduces the need for an instructor to have specialized knowledge in every content area
 - (4) Use of external "consultants" adds to students' acceptance of concepts they are unfamiliar with.

b. Limitations

- (1) Can be expensive
- (2) Time required to identify the best available resource people
- (3) Scheduling resource people around their diverse schedules
- (4) Time consuming to assemble group

c. Audience Size—no real restrictions.

d. Ways to Enhance Learning

- (1) Use students as resource people when possible
- (2) Invite students to help plan for and decide on appropriate resource people
- (3) Encourage the participation of resource people who are familiar with the type of students and information that needs to be presented

7. Question-Answer Session

An unstructured dialogue using questions from students.

a. Advantages

- (1) Allows interchange of ideas between instructor and students
- (2) Invokes an active response from students
- (3) Meets specific needs of students
- (4) Provide for sharing information among students

b. Limitations

- (1) Time consuming to achieve objectives
- (2) Hard to achieve specific objective unless key questions are planted
- (3) Students may need encouragement to ask questions

- (4) May be difficult to have all students hear questions
- c. Audience Size—no real restrictions.
- d. Ways to Enhance Learning
 - (1) Allow sufficient time for all questions
 - (2) If students are reluctant to start the questions, have some key questions planted in the group
 - (3) Use this method as a follow-up to a more structured instruction strategy
 - (4) If the group is too large, have students write questions on index cards

8. Role Playing

Acting out a problem or situation

- a. Advantages
 - (1) Students can observe concepts in action first-hand
 - (2) Motivates students to attempt to place the learning in action
 - (3) Emphasizes sequential behaviors
 - (4) Allows for group feedback
- b. Limitations
 - (1) Time consuming to prepare
 - (2) May not be enough time to utilize all learners in role play situations
 - (3) Some students may be reluctant to participate
- c. Audience Size—varies according to the number of students needed for each role situation. Large groups can be accommodated by the use of a variety of role plays.
- d. Ways to Enhance Learning

- (1) Make the role play as close to a given situation or problem as possible
- (2) Utilize as much equipment or materials as possible to accurately play out the problem or situation
- (3) Keep the role play problem-centered, not student-centered
- (4) Follow up the presentation with a discussion

Role playing is a good hands-on practice activity.

9. Case Study Scenario

Review, study, and discuss an incident or situation and make recommendations for a solution. Case studies are a good hands-on practice activity.

a. Advantages

- (1) Encourages critical thinking and analysis
- (2) Develops skills of problem formulation and resolution
- (3) Generates a variety of ideas and alternative viewpoints
- (4) Allows students to evaluate the various solutions and determine the best course of action for real life situations

b. Limitations

- (1) Can be time consuming to prepare
- (2) Cannot be used when a large amount of materials needs to be covered
- (3) Difficult to use with complex or technical information

c. Audience Size—no real restrictions.

d. Ways to Enhance Learning

- (1) Use real life incidents and situations familiar to the students

- (2) Allow for sufficient time for students to review, analyze, discuss, and evaluate the various solutions
- (3) When possible, generalize incidents to other similar situations
- (4) Have the study reflect material already presented to the students and use the case study as an opportunity to have students apply their knowledge practically

TEACHING AIDS

People can learn in different ways, but usually they learn best in one or two ways. Some need to hear the content, others need to see it or read it, and still others need to touch or manipulate objects.

Consequently, the students in the class may be composed of people with different learning styles. Lectures teach only the audio learner. Lectures using transparencies pick up the visual learner. While it may not be possible to involve all of the senses, the more senses involved, the more learning is likely to occur. The use of teaching aids gives the flexibility not found in a "one method" instructional style.

The term "teaching aid" is now being used for almost any instructional enhancement such as tapes, films, slides, video cassettes, transparencies, flip charts, boards, or models. It encompasses purchased materials as well as instructor-developed items. Plans for teaching aids need to be made as early as possible, to allow time for development, rental, or purchase. The most important consideration for the use of teaching aids is that they support and enhance the teaching-learning process. Five common types of teaching aids, with attention to description, advantages, disadvantages, costs, uses, and development by instructor are presented in the following section.

1. Transparencies

Transparent sheets are usually made of acetate and projected on a screen or wall. Information is put on sheets by using special marker pens or a special type of hot copier.

a. Advantages

- (1) Simple to use and easy to make
- (2) Inexpensive
- (3) Reusable
- (4) The instructor faces the class

- (5) Suitable for all methods of instruction
- (6) Commercial ones available
- (7) Presentation rate controlled by instructor

b. Limitations

- (1) Loses definition in a large room or auditorium
- (2) Needs an overhead projector

c. Cost

- (1) Overhead projector
- (2) Acetate sheets
- (3) Pens, stencils
- (4) Purchase of commercially prepared transparencies

d. Uses

- (1) List steps in a procedure
- (2) Illustrate points
- (3) Display tables, charts, or graphs
- (4) List discussion questions

e. Development by Instructor

- (1) Use darker color pens—black, green, blue for best results
- (2) Leave 1-inch margin on all sides
- (3) Print larger than normal
- (4) Limit material on each sheet
- (5) Experiment with overlays
- (6) Use several colors for emphasis
- (7) Need skill to produce multiple overlays
- (8) Store acetate sheets in manilla folders. To prevent the sheets from sticking together, place blank sheets of paper between them.

2. Flip Charts, Posters, and Charts

Use heavy paper or cardboard, single or attached, to display information

- a. Advantages
 - (1) Inexpensive
 - (2) Flexible
 - (3) Reusable
 - (4) Does not require special equipment except an easel for the flip chart
- b. Limitations
 - (1) Difficult to store and transport (usually too large)
 - (2) Can be seen clearly by only a small group
 - (3) Condition deteriorates rapidly by tearing and soiling
- c. Cost
 - (1) Cardboard and paper are inexpensive
 - (2) Any markers and colors can be used
- d. Uses
 - (1) List steps in procedures
 - (2) Illustrate points
 - (3) Display charts, graphs, diagrams
 - (4) List discussion questions
 - (5) Summarizes
- e. Development by Instructor
 - (1) Back thin paper sheets with cardboard
 - (2) Write, print, or draw larger than usual

- (3) Have easel or other prop to hold posters or charts up and close to audience
- (4) Use bright colors
- (5) Limit information on each sheet
- (6) Store carefully to prevent tearing and soiling

3. Films, Videotapes, TV

a. Advantages

- (1) Convey information in an interesting and stimulating manner
- (2) Provide easy repetition of content
- (3) Suitable for all size audiences
- (4) Can bring detail up close to audience

b. Limitations

- (1) Expensive to buy or produce
- (2) Often need to schedule weeks or months ahead of time
- (3) Time required to preview many films to find the right one
- (4) Best film may contain information that is contrary to law, policy, procedure and practices
- (5) Darkened room usually required

c. Cost

- (1) Rental fees can become costly
- (2) Production skills and costs are considerable and beyond the capability of many organizations

d. Uses

- (1) Convey information

- (2) Provide basis for discussion
 - (3) Demonstrate procedures
 - (4) Test knowledge
- e. Development by Instructor (making your own films)
 - (1) Take a production course
 - (2) Start with a small project
- f. Points for use of films
 - (1) Be sure the room is suitable for showing a film
 - (2) Do not just show the films; set the stage and give an overview before showing
 - (3) Have time for discussion and sharing of information after the showing
 - (4) If a skill is demonstrated in the film, have suitable equipment available for practice

4. Slides and Tapes, PowerPoint™Presentations

- a. Advantages
 - (1) Sequence and speed controlled by the instructor
 - (2) Suitable for all sizes of audience
 - (3) Can bring detail up close to the audience
 - (4) Convey steps of a procedure
 - (5) Requires less sophisticated skills to make than a film
 - (6) May require a darkened room
- b. Limitations
 - (1) Needs expensive equipment to produce

(2) Can be costly to buy

(3) Some types cannot show motion

c. Cost

(1) In-production costs are high

(2) Purchase costs will vary according to length and quality

d. Uses

- (1) Convey information
- (2) Provide basis for discussion
- (3) Demonstrate procedures
- (4) Test knowledge
- (5) Can show complete series or just certain segments

e. Development by Instructor

- (1) Take a production course
- (2) Start with a small project

f. Points for use of slides

- (1) Be sure the room is suitable for slide projection
- (2) Do not just show slides; set the stage, provide an overview before showing
- (3) Have time for discussion and sharing information after the showing
- (4) If skill is demonstrated in the slides, have suitable equipment available for practice

5. Models

An artificial representation of something, such as a model car.

a. Advantages

- (1) Provide realistic examples for practice or demonstration situations
- (2) Allows safe, non-threatening practice
- (3) Provide flexibility in scheduling
- (4) Is more accessible than a real item

(5) Can be used in many instructional units

b. Limitations

- (1) Quality will determine how realistic it is
- (2) May be too costly to design and develop

c. Cost

- (1) Varies with technical quality and type of model
- (2) Reusable in different settings and units

d. Uses

- (1) Illustrate material
- (2) Provide examples
- (3) Provide practice
- (4) Demonstrate procedure

e. Development

- (1) Most instructors purchase models, rather than make them, to obtain more realistic models
- (2) Examine models before you purchase them
- (3) Work with other instructors to see what models can be shared over several instructional units

6. Simulations

A simulation of the actual experience of operating an emergency vehicle

a. Advantages

- (1) Provide realistic examples for practice or demonstration situations
- (2) Allows safe, non-threatening practice

(3) No wear and tear on patrol-type vehicles

- (4) Ease of instructor observation
 - (5) If automated, a playback of the student's decisions can be reviewed
- b. Limitations
 - (1) Expensive to acquire
 - (2) Difficult to involve more than one student at a time
 - (3) May not be sophisticated enough to simulate reality
 - (4) May not have sufficient variety in scenarios for frequent use
- c. Cost
 - (1) Initial cost is high
 - (2) Maintenance and upgrade costs must be programmed
- d. Uses
 - (1) Teaches operator decision-making
 - (2) Demonstrate negative consequences of poor decision making
- e. Development
 - (1) Very difficult to develop—participation with a vendor may be advisable
 - (2) Examine models before considering one for purchase
 - (3) Work with other agencies or schools to see what models can be shared over several instructional units

PART II

SAMPLE TEST QUESTIONS

Note: Asterisk (*) indicates correct answer

1. A law enforcement officer operating a vehicle in a non-emergency mode must:
 - a. conform driving to the requirements of the state "authorized emergency vehicle" statute.
 - b. conform driving to applicable agency policy on non-emergency driving and nothing else.
 - c.* conform driving to the requirements of state traffic law applicable to the motoring public generally.
 - d. conform driving to a standard of care which the officer subjectively views as reasonable under the circumstances.

Refer to Objective 1.1

2. The violation of agency policy on non-emergency driving by an officer operating a vehicle in a non-emergency mode:
 - a.* may be considered as evidence of the officer's negligence.
 - b. does not constitute violation of state law and is therefore not admissible as evidence of the officer's negligence.
 - c. does not rise to the level of violation of the state "authorized emergency vehicle" statute and is therefore not admissible as evidence of the officer's negligence.
 - d. may be considered in a civil action against the officer only if the violation rises to the level of "willful misconduct".

Refer to Objective 1.1

3. Under general negligence tort law principles, an officer operating a vehicle in a non-emergency mode:
 - a. must operate emergency warning devices.

- b. owes no duty of care to the public generally unless the duty is created by statute, agency policy, or the officer's own act.

- c.* owes a duty of care to the public generally.
- d. owes no duty to the public generally or individually, as the police power is superior to rights of the public in law enforcement driving situations.

Refer to Objective 1. 1

- 4. While on routine patrol, an officer turns his or her police vehicle in the wrong direction down a one-way street in order to quickly perform building inspections. A private citizen driving in the proper direction cannot avoid colliding with the police vehicle because of obstructed vision created by a lawfully parked car. The citizen is injured and sues the police officer. What is the likely outcome of the law suit?
 - a. The police officer wins because he or she is the driver of an 'authorized emergency vehicle' and is protected from civil liability.
 - b. The police officer wins because he or she owes no duty to the citizen under general negligence tort law principles.
 - c.* The citizen wins because the officer is negligent due to his or her violation of state traffic law.
 - d. The citizen wins because the officer has a duty to every member of the public individually.

Refer to Objective 1. 1

- 5. Identify which of the following are reasons for driver training:
 - a. Compliance with federal regulations
 - b. Reduction of accidents
 - c. Civil liability for negligent use of the vehicle
 - d. All of the above
 - e.* b and c

Refer to Objective 2.1

6. Which of the following types of braking action would apply to most braking situations?
- a. Stab braking
 - b. Hard, firm braking
 - c. Locked wheels
 - d.* Moderate, steady, even braking pressure

Refer to Objectives 2.12 and 2.15

7. The most effective method to avoid a collision with another vehicle in your path is by:
- a. hard braking.
 - b. lock-skid and steering around it.
 - c.* taking your foot off the gas pedal and steering smoothly around.
 - d. All of the above

Refer to Objective 2.13

8. Which of the following is most important in the braking action of a vehicle?
- a.* Maintaining rolling friction of the wheels
 - b. Having good tires
 - c. Holding the steering wheel firmly
 - d. Having proper tire pressure

Refer to Objective 2.12

9. While backing, the following method should be used:
- a. Palming the wheel
 - b. Looking over your right shoulder

- c. Spending 10% of the time looking forward for front end swing
- d.* All of the above

Refer to Objective 2.15

10. Which of the following should be considered in determining if the pursuit should be terminated?
- a. Nature of the suspected offense
 - b. Weather and road conditions
 - c. Danger to the community if the suspect is not captured
 - d. Other means of apprehension
 - e.* All of the above

Refer to Objective 4.1

11. Fill in the blanks with factors that influence perceptions and judgment during an emergency response:
- a.* Sensing
 - b.* Identifying
 - c.* Predicting
 - d.* Deciding
 - e.* Executing

Refer to Objective 3. 1

12. Which of the following is a consideration while using the police radio in an emergency response?
- a. Voice control
 - b. Ethics and morals

- c. Placement of microphone
- d. a and c
- e.* All of the above

Refer to Objective 3.5

13. To control a vehicle starting into a rear-wheel skid to the left, you should:
- a. brake and steer to the left.
 - b.* decelerate and steer to the left.
 - c. steer to the left and accelerate slightly.
 - d. steer to the right.

Refer to Objective 2.14

14. When rear tires have less traction than front tires it is known as:
- a. understeer.
 - b.* oversteer.
 - c. load imbalance.
 - d. None of the above

Refer to Objective 2.11

15. Which of the following contribute to proper attitudes in law enforcement driving?
- a. Impatience, collusion, confidence
 - b.* Maturity and emotional control
 - c. Apprehension, self initiative, preoccupation
 - d. All of the above

- e. None of the above

Refer to Objectives 2.3 and 3.3

16. Which of the following choices is most complete in identifying the components of defensive driving?
- a. Driver attitude
 - b.* Awareness, space management, accident avoidance
 - c. Courtesy and fair play
 - d. Driving conditions, courtesy of others, vehicle capability

Refer to Objective 2.5